UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

September 1961

Part II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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Bureau of Commercial Fisheries
Biological Laboratory
P. O. Box 6121, Pt. Loma Station
San Diego 6, California

* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN
SEPTEMBER 1961

Acknowledgments

The following organizations and stations contributed data for the September 1961 charts:

U.S. Weather Bureau, San Diego, California
U.S. Weather Bureau Ship Visitation Office, Long Beach, California
U.S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U.S. Navy Branch Hydrographic Office, Honolulu, Hawaii; Seattle, Washington; San Francisco and Wilmington, California
U.S. Coast Guard, Port Hueneme Light Station, Port Hueneme, California
U.S. Bureau of Commercial Fisheries, Biological Laboratories, Honolulu, Hawaii; La Jolla, California; Seattle, Washington
U.S. Bureau of Commercial Fisheries, Exploratory Fishing and Gear Research Base, Seattle, Washington
Hopkins Marine Station, Pacific Grove, California, by J. P. Balesteri
Humboldt State College by George Allen
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; David Ortega at Manzanillo, Mexico; Romeo Valencia at Pt. San Jose, Guatemala; R. E. Pino at Pt. Armuelles, Panama; V. E. Castillo at Tumaco, Colombia; Gualberto Tapia at San Cristobal, Galapagos; Jose Lanchimba at La Libertad, Ecuador; C. Gamarra at Talara, Peru; R. Celis at San Juan, Peru
Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California; Piura, Peru
Kelco Company, San Diego, California
Newport Beach Lifeguard Service, Balboa, California
Pacific Oceanographic Group, Nanaimo, British Columbia, by H. J. Hollister from observations by R. W. Collins at Quatsino Lightstation; J. Rylin at Cape St. James Light; B. Stuart at Amphitrite Point Light; J. M. Hartt at Langara Island Light

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ERRATA

PAGE 4, FIGURE 1. Mean sea surface temperature chart. The August 1961 chart was inadvertently printed and included in the September 1961 issue. The correct chart for September 1961 is shown on the reverse side of this page.

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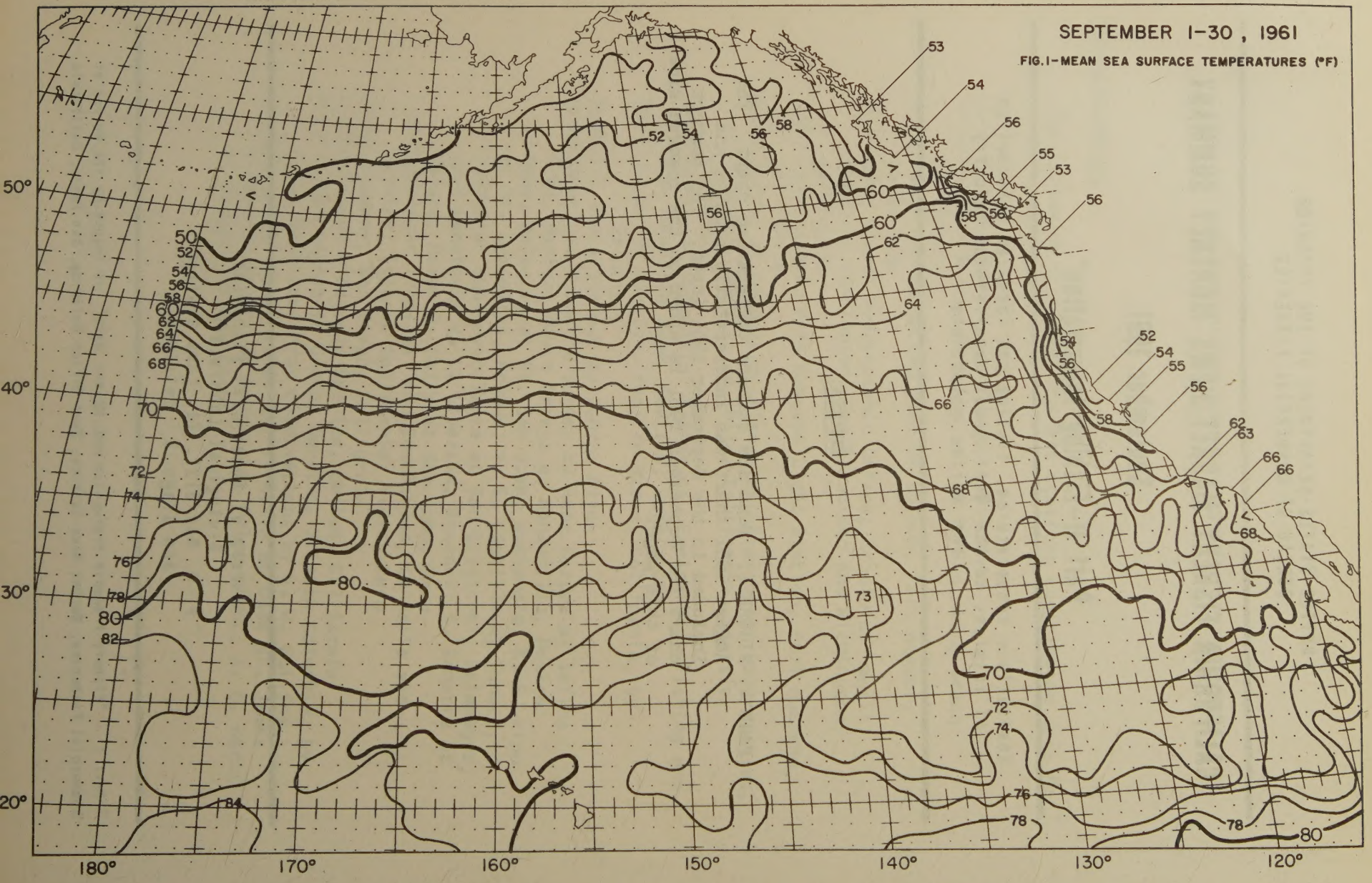

SEPTEMBER 1-30, 1961
FIG.1-MEAN SEA SURFACE TEMPERATURES (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
56
73

Scripps Institution of Oceanography, La Jolla, California
by Margaret Robinson and Hans Klein
Ships Frances Salman, Trolleggen, Elin Haven, Besseggen, Kongsholm and Santa Maria

Charts

Figure 1.--Mean sea surface temperatures (^{o}F) derived from approximately 8000 observations. Squares show temperature at weather-ship stations. Numerals on shore are temperatures at coastal and light stations.

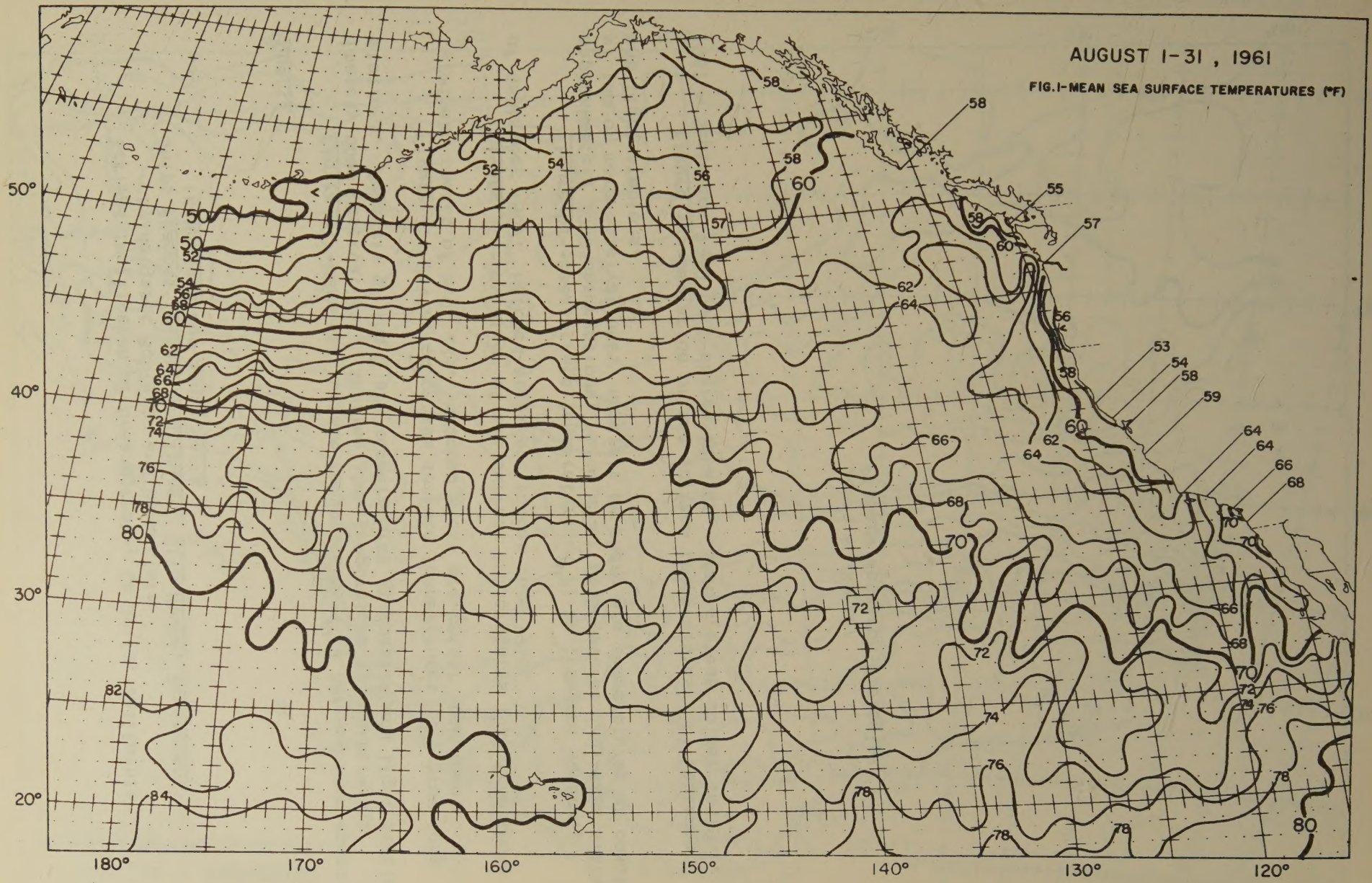
Figure 2.--Deviation of sea surface temperatures (^{o}F) from long term mean charts of H.O. 225. Hatched areas are colder than mean.

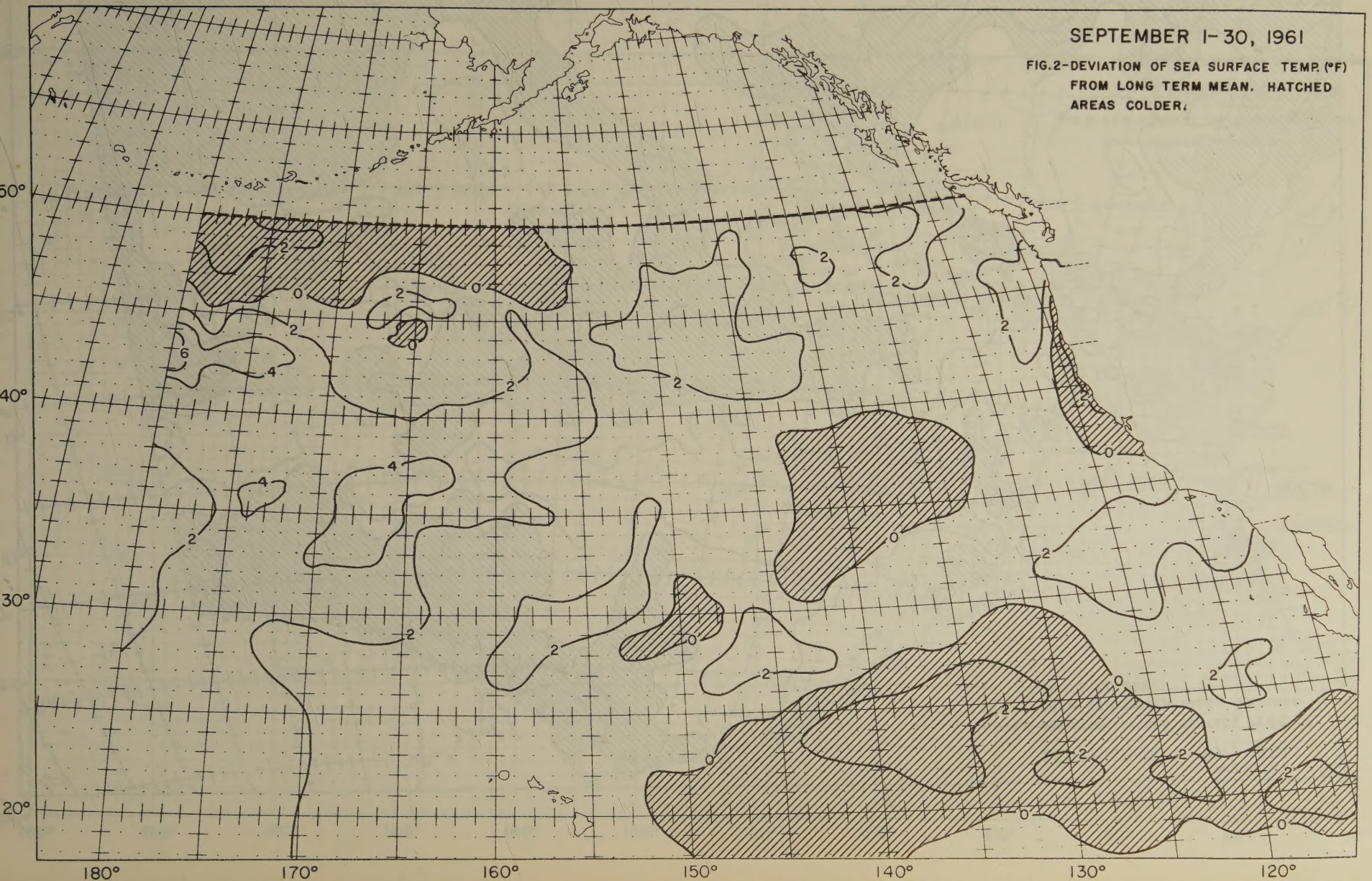
Figure 3.--Deviation of sea surface temperatures (^{o}F) from those of September 1960. Hatched areas are colder than 1960.

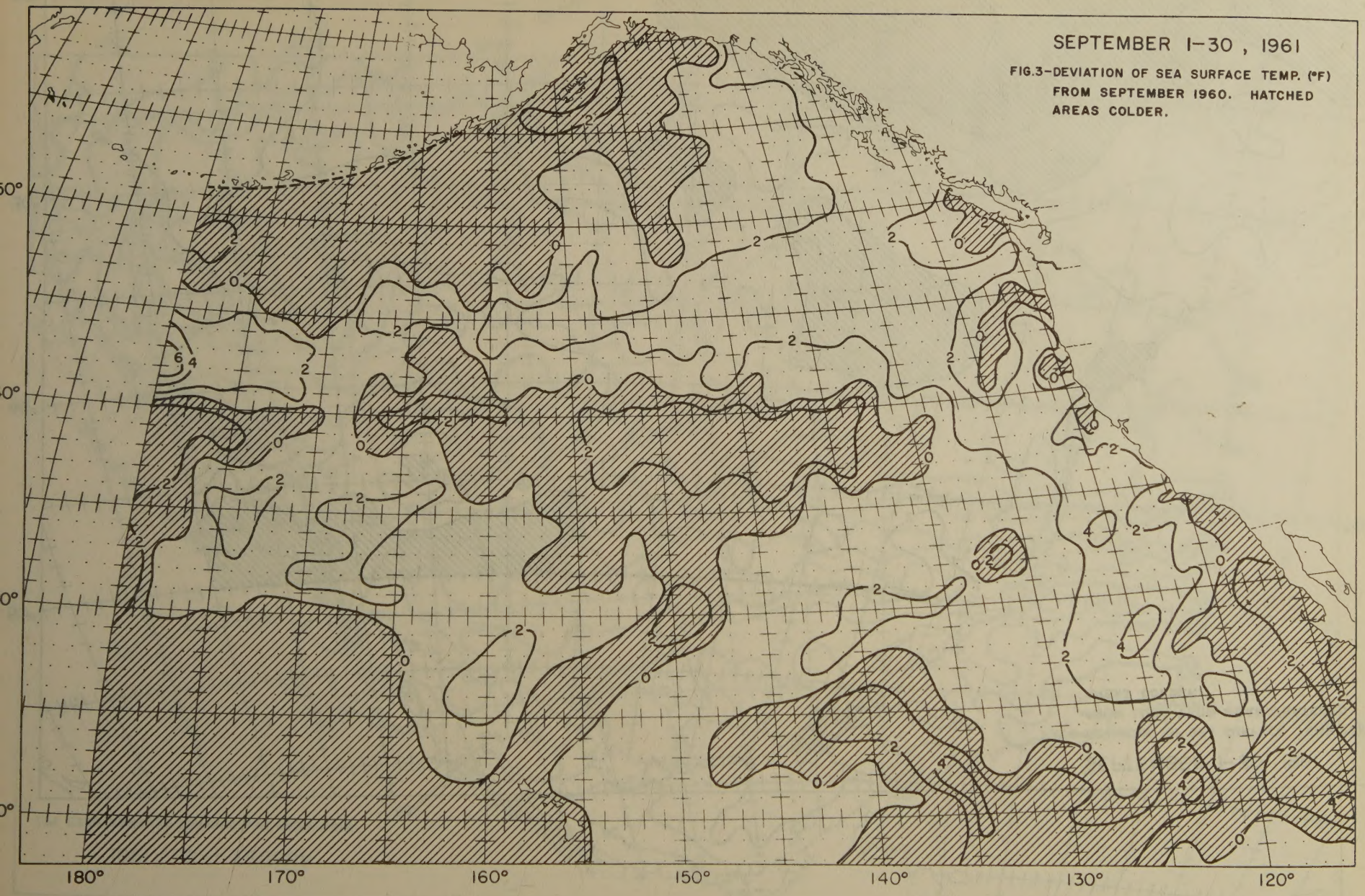
Figure 4.--Sea surface temperatures (^{o}F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal and light stations.

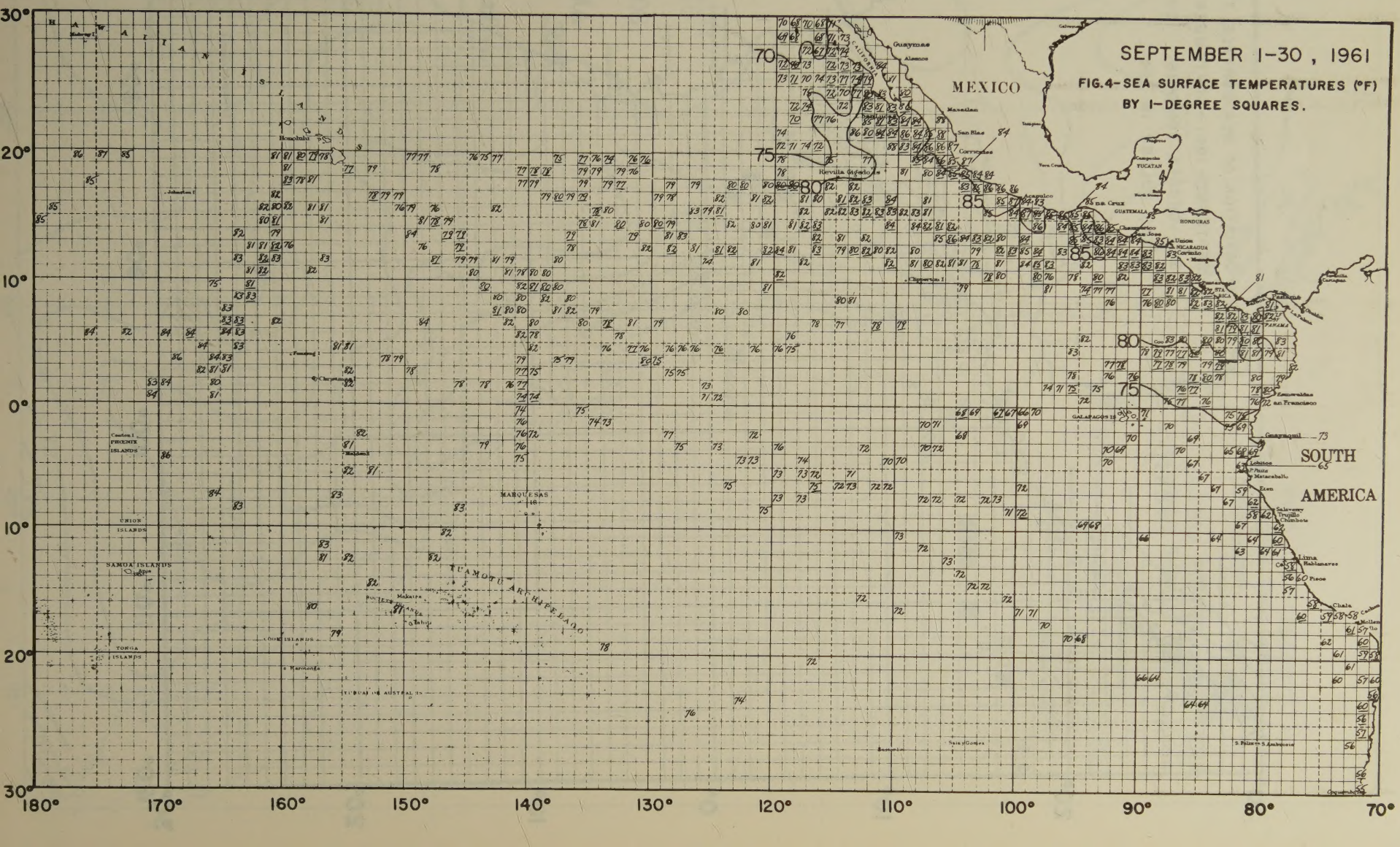
Figure 5.--Deviation of sea surface temperatures (^{o}F) September 1961 - September 1960 by 1-degree squares. Shaded areas colder in 1961.

James A. Renner
Fishery Research Biologist


AUGUST 1-31, 1961
FIG.1-MEAN SEA SURFACE TEMPERATURES (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


SEPTEMBER 1-30, 1961
FIG.2-DEVIATION OF SEA SURFACE TEMP. (°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


SEPTEMBER 1–30 , 1961
FIG.3–DEVIATION OF SEA SURFACE TEMP. (°F) FROM SEPTEMBER 1960. HATCHED AREAS COLDER.
180°
170°
160°
150°
140°
130°
120°


SEPTEMBER 1-30, 1961
FIG.4-SEA SURFACE TEMPERATURES (°F)
BY 1-DEGREE SQUARES.
MEXICO
SOUTH
AMERICA
HAWAIIAN ISLANDS
Honolulu
Johnston I.
Palmyra I.
Christmas I.
Canton I.
PHOENIX ISLANDS
Howland I.
UNION ISLANDS
SAMOA ISLANDS
Pago Pago
MARQUESAS IS.
TUAMOTU ARCHIPELAGO
Papeete
Tahiti
COOK ISLANDS
Rarotonga
TUBUAI IS.
AUSTRAL IS.
TONGA ISLANDS
GALAPAGOS IS.
Easter I.
Guaymas
Mazatlan
San Blas
Manzanillo
Salina Cruz
Acapulco
YUCATAN
GUATEMALA
HONDURAS
NICARAGUA
Corinto
Balboa
Guayaquil
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Arica
30°
20°
10°
0°
10°
20°
30°
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°

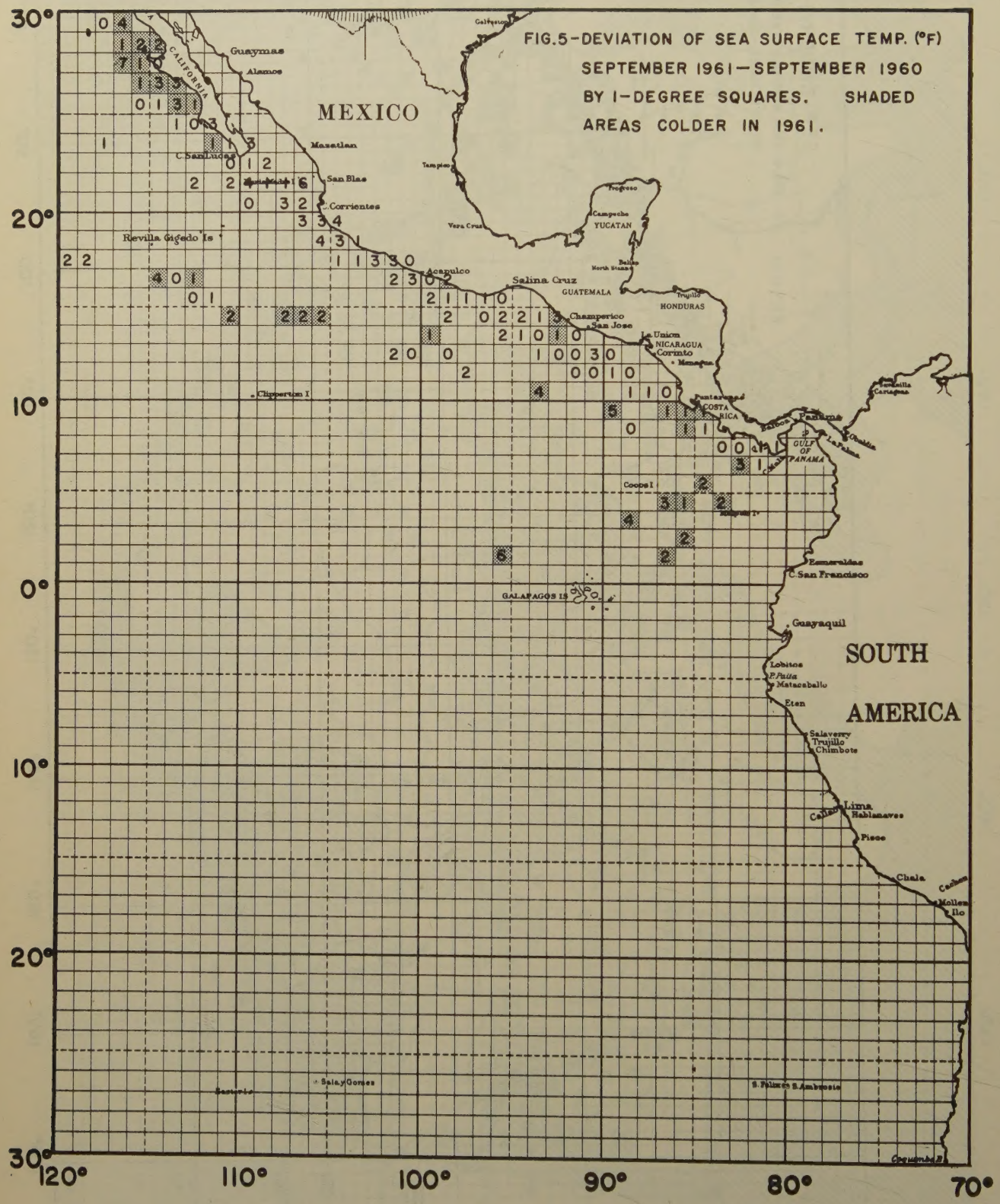
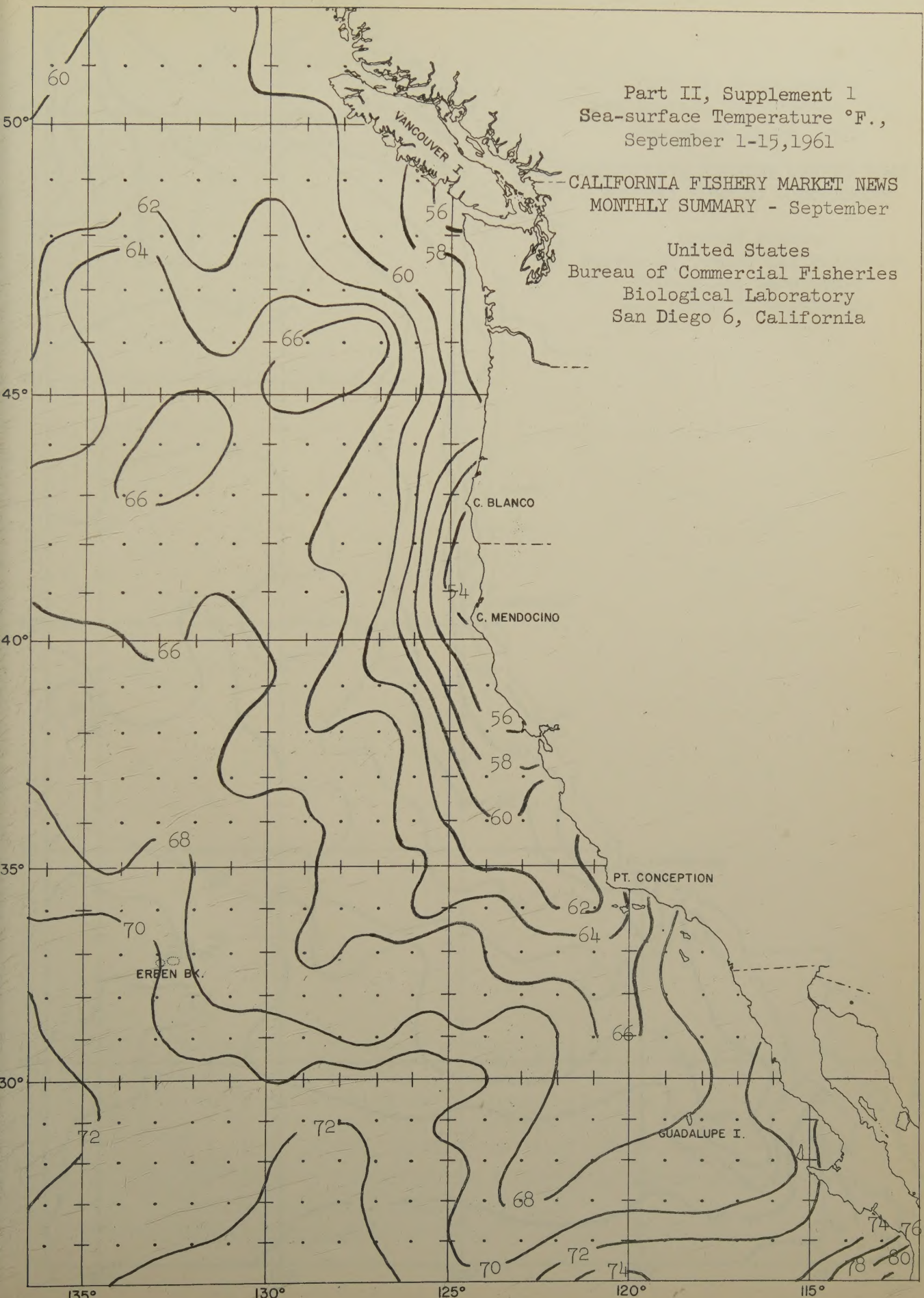
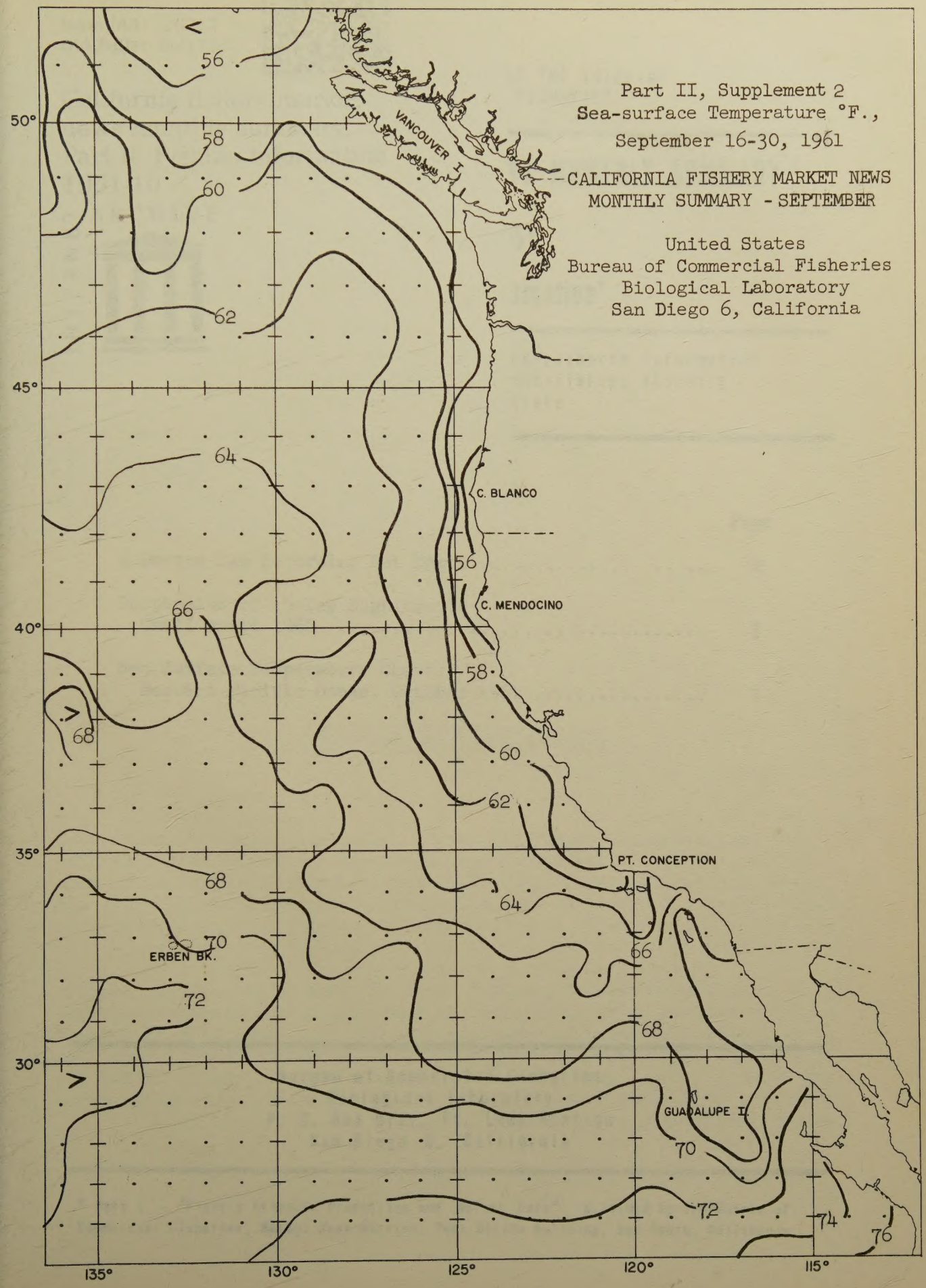


FIG.5-DEVIATION OF SEA SURFACE TEMP. (°F)
SEPTEMBER 1961—SEPTEMBER 1960
BY 1-DEGREE SQUARES. SHADED
AREAS COLDER IN 1961.
MEXICO
SOUTH
AMERICA
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Revilla Gigedo Is
Acapulco
Salina Cruz
GUATEMALA
HONDURAS
Champerico
San Jose
NICARAGUA
Corinto
Managua
Clipperton I
COSTA RICA
Panama
GULF OF PANAMA
Cocos I
GALAPAGOS IS
Esmeraldas
C. San Francisco
Guayaquil
Lobitos
Talara
Matacaballo
Eten
Salaverry
Trujillo
Chimbote
Callao
Lima
Huacho
Pisco
Chala
Mollendo
Arica
30°
20°
10°
0°
10°
20°
30°
120°
110°
100°
90°
80°
70°


Part II, Supplement 1
Sea-surface Temperature °F.,
September 1-15,1961
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - September
United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California
VANCOUVER I.
C. BLANCO
C. MENDOCINO
PT. CONCEPTION
GUADALUPE I.
ERBEN BK.
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°
60
62
64
66
56
58
54
68
70
72
74
76
78
80


Part II, Supplement 2
Sea-surface Temperature °F.,
September 16-30, 1961
CALIFORNIA FISHERY MARKET NEWS
MONTHLY SUMMARY - SEPTEMBER
United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California
VANCOUVER I.
C. BLANCO
C. MENDOCINO
PT. CONCEPTION
ERBEN BK.
GUADALUPE I.
50°
45°
40°
35°
30°
135°
130°
125°
120°
115°
56
58
60
62
64
66
68
70
72
74
76